EU energy security: recent developments and trends

In the wake of both the uprisings that have destabilized Northern Africa and the nuclear disaster in Japan, future prospects for EU energy security look less and less promising. The rapidly growing public opposition to nuclear power and the current insecurity concerning energy supplies from Northern Africa are only the two latest elements of a series of factors that seriously challenge the European Union’s objectives in the energy field. EU domestic production of all fossil fuels has been decreasing for more than a decade. At the current rate of extraction, oil reserves will be depleted within eight years, which will make the Union more dependent on its Russian, Middle Eastern, Norwegian and North African suppliers. Domestic production of natural gas has been decreasing since 1996, while demand increased greatly in the last 15 years. Dependency on gas imports will increase further to reach an estimated 73-79% of consumption by 2020 and 81-89% by 2030, mostly due to the depletion of indigenous resources. Prospects look bleak also for nuclear power, particularly after the Fukushima accident in Japan has led some of the largest EU countries, notably Germany and Italy, to reconsider their policies in this respect.

Within this context, gas imports are of extreme importance for the EU, especially due to the role that gas plays in electricity production. In the EU the amount of electricity produced from nuclear power has remained stable since the 1990s, while production from coal and oil has decreased continuously. Conversely, production deriving from gas has trebled during the last fifteen years. In order to decrease its dependence on single gas providers, the EU has set itself the objective of diversifying suppliers and building new infrastructure to gain better access to gas reserves located outside its borders. The Southern Corridor and the planned Nabucco gas pipeline, which would connect the EU with the Caspian and Middle Eastern basins, are one of the main elements of the EU diversification strategy.

Russia’s role for EU energy security

EU-led projects have encountered numerous difficulties and are implemented at a surprisingly low speed. The realities on the ground show that the EU is very far from obtaining its diversification objectives. Russia continues to be by far the Union’s main fossil fuel supplier. EU gas imports from Russia amount to 44.5% of total EU gas imports and Russian gas satisfies 24% of total EU gas consumption. In recent years Russia has been faster than the EU at securing control of gas supplies from Central Asia and the Caucasus and at building the necessary infrastructure to ship gas to Europe. The Nord Stream project, which is now nearing completion, provides an example in this respect. Developed by a consortium led by the Russian state giant Gazprom and the EU-based companies E.ON, BASF and Gasunie, Nord Stream should start...
TEPSA benefits from the support of the European Commission delivering gas to the EU already in late 2011, to reach a capacity of 55 billion cubic metres per year (bcm/a) by late 2012. This pipeline should also prevent the EU and Russia from having to rely on Ukraine as transit country, which proved problematic during the Yushchenko presidency. Furthermore, a consortium of Gazprom and the Italian ENI plans build the South Stream gas pipeline by 2016 in order to ship gas to the EU via the Black Sea and the Balkans. Due to its route and to the fact that it will probably need gas from the same fields, South Stream is a strong competitor to the Nabucco project.

Although Russia’s new pipelines aim at making more gas available on the EU market, Brussels has taken an ambivalent stance with regard to these projects, mostly because they would increase the EU’s dependence on Moscow in the energy field. This stance can hardly be reconciled with the Kremlin’s requests of guarantees that the EU will buy large quantities of Russian gas in the long run. Russia would like to have more security of demand from the EU in order to make the large investments to modernize its pipeline system and expand it towards Europe. For this reason, the large European gas companies have concluded 30-year agreements with Gazprom, according to which they have to buy set gas volumes at a price that is linked to that of oil. However, some commentators argue that the EU’s long-term gas demand is difficult to calculate due to sluggish internal growth, the unknown impact of climate change policies and the possibilities to exploit domestic shale gas. Furthermore, the rise in oil price due to the gradual global recovery and the instability of several Middle East and North African exporter countries is making contract gas very expensive. Smaller companies are taking advantage of the increasing gas liberalization by selling cheaper gas that they buy on the spot market.

Nevertheless, the EU has no valid alternative to gas supplies from Russia in the foreseeable future. While the exploitation of domestic shale gas is still an uncertain and distant prospect, the decrease in domestic production of conventional gas is already a fact. The EU cannot afford to jeopardize its energy relations with Russia under these circumstances. The Kremlin was already annoyed by Brussels’ requests to unbundle Gazprom-owned gas pipelines in the EU and sell access to them to other companies. The EU’s “third energy package”, which came into force in March 2011 and makes the “unbundling” of pipelines a legal requirement, is likely to further deteriorate energy relations with Russia, particularly because it would prevent Gazprom from implementing new projects such as South Stream as integrated entities. Already in 2009 Russia withdrew its signature of the Energy Charter Treaty, making clear that it does not want to be bound by rules that it considers biased towards consumer countries. Moscow also does not like the idea that the energy clauses of the EU-Russia Partnership and Cooperation Agreement (PCA) should be based exclusively on the EU acquis in energy matters. Thus, without a solid commitment from EU member states to buy Russian gas, Moscow will not invest the huge sums necessary to guarantee a long-term supply to the EU and may also translate into practice its threats to shift gas sales towards China and the Far East.

The Southern Corridor and Nabucco: where do we stand?

The Southern Energy Corridor is the EU’s main project to emancipate itself from energy dependence on Russia. The aim of the Corridor, of which Nabucco is the most essential component, is to directly link the EU gas market to the Caspian and Middle Eastern basins bypassing Russia. The Commission stated in its Communication on “energy infrastructure priorities for 2020 and beyond” of 17 November 2010 that the strategic objective of the Southern Corridor is to achieve a supply route of 45-90 bcm/a of gas by 2020. This quota exceeds the planned capacity of the Nabucco pipeline (31 bcm/a) and it is not clear what additional infrastructure would be used to channel the other gas. To solve this issue, the Russia-controlled South Stream pipeline, which should carry 63 bcm/a of gas to the EU by 2016, could be integrated in the Southern Corridor, provided that Brussels accepts Russian involvement in the Corridor.
The main problem concerning Nabucco is that it is not yet clear where the necessary gas to make it economically viable will come from. Azerbaijan is the pivot of the EU’s Southern Corridor strategy for energy diversification, both as immediate supplier and as transit country. However, Brussels has little to offer to Baku in order to strengthen their partnership. Azerbaijan has already expressed its preference for a “multivector” foreign policy, rather than having the EU as a privileged partner. For this reason, Baku intends to export its gas also to other countries and has recently promised billions of cubic metres of gas to Russia and Iran. Gazprom has already doubled its gas imports from Azerbaijan from 2009 to 2010 and will double them again in 2011, reaching 2 bcm per year.

Conversely, sales of Azeri gas to the EU have recently been postponed. Due to some unresolved issues with potential customers, the sale of natural gas from the Shah Deniz 2 gas field in Azerbaijan, which the EU needs to fill one third of the Nabucco pipeline, was delayed by at least six months in March 2011. Further obstacles to the sale of this gas may emerge due to outstanding political controversies. Azeri president Ilham Aliyev openly stated that the EU will have to support Azerbaijan in the Nagorno-Karabakh conflict, if it wants to gain access to the Shah Deniz gas and secure a return on Nabucco. Thus, the joint declaration signed by Aliyev and Barroso in Baku in January 2011, emphasizing the role of Azerbaijan as a substantial contributor to and enabler of the Southern Gas Corridor, will have little significance unless it is followed by concrete action. The declaration sets no deadlines and merely “encourages” investors to advance the Shah Deniz 2 project, without offering substantial guarantees.

Even if the EU were able to secure control of Azeri gas, the latter alone would not suffice to make Nabucco economically viable. Nabucco would therefore need gas from Turkmenistan. However, including Ashgabat in the project would involve massive costs for modernizing the obsolete Turkmen gas industry. Furthermore, the EU would have to face fierce Russian and Chinese competition to secure access to Turkmen gas. Extending the Nabucco pipeline to Turkmenistan would also involve the construction of an underwater pipeline in the Caspian Sea, which may prove complicated due to fact that the legal status of this sea has not yet been determined.

From an economic viewpoint, Iran would be an optimal supplier for Nabucco, due to both geographical reasons and its large resources of natural gas. However, Teheran is not considered a reliable partner for political reasons. Consequently, Iraqi gas was included in the project. However, re-routing Nabucco to Iraq will add another 500 kilometres of pipelines, which will increase costs and security risks. Furthermore, Nabucco still does not have any commercial supply contracts in place, which would be essential to provide assurance to investors. EU Commissioner for Energy Günther Oettinger has recently stated that, due to these issues and delays, the Nabucco pipeline will not be ready before 2018, namely four years later than planned. On the other hand, Nabucco’s competitor South Stream could start delivering gas to Europe two years earlier.

What could the EU do next?

In order to attempt to increase its energy security through the Southern Corridor, the EU can follow two policy lines. On the one hand, it could pursue the current strategy and keep Russia out of its projects. In order to ensure Nabucco’s economic viability under these circumstances, the EU and its member states would have to massively increase their political backing of the project, set strict deadlines and secure commercial supply contracts, thereby creating an environment that would attract investors. Most importantly, they would have to ensure that enough gas is available to make Nabucco economically viable by securing access to either Turkmen or Iraqi gas, accepting the high costs that would derive from these operations. If this strategy is followed, Brussels would also have to take into account the consequences that may result from a possible confrontation with Russia, which would continue to challenge EU projects.
by both securing quicker access to Central Asian resources and building competing infrastructure such as South Stream.

Alternatively, the EU could seek greater cooperation with Moscow and integrate Russia in the Southern Corridor. This could also allow merging the Nabucco and South Stream projects, as already proposed by ENI Chief Executive Officer Paolo Scaroni in March 2010, and avoid the construction of two parallel pipelines that would compete for access to the same gas reserves. The fast progress made on North Stream shows that successful cooperation is possible and that Russia attributes great importance to energy trade with the EU. As emerges from the Russian Energy Strategy until 2030, energy exports will continue to be one of the most significant factors contributing to the country’s economic development. Exporting gas to the EU is therefore also in Russia's strategic interests, as the Union constitutes by far the largest market for Russian exports of fossil fuels. By further developing and integrating its domestic pipeline network, the Union could also dispel the fears of the member states that are bypassed by Russian pipeline projects such as Nord Stream and are wary of energy deals with Moscow.

The EU-Russia Energy Dialogue, established in 2000, would provide a suitable forum to promote cooperation. Thanks to this Dialogue, an early warning mechanism was set up in late 2009 to ensure rapid communication and prevent supply interruptions such as those that were caused by the Russo-Ukrainian energy conflict in January 2009. As agreed on the 10th anniversary of the Dialogue, developing a long-term roadmap concerning the role of Russian energy resources for the EU until 2050, as well as the construction of relevant energy transportation infrastructure, would be in the interest of both sides and help increase mutual confidence.

Suggested further reading:


- Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 17 November 2010

- European Commission's webpage on EU-Russia energy relations
  [http://ec.europa.eu/energy/international/russia/russia_en.htm](http://ec.europa.eu/energy/international/russia/russia_en.htm)

- *Le Monde Diplomatique*, "L’Azerbaidjan fera-t-elle plier l'Europe?", 22 March 2011